

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Docket No.: HOPPE-10

In re Application of:)
THOMAS HOPPE)
Cont. of Int. Appl. No.: PCT/EP02/09645)
Int. Filing Date: August 29, 2002)
For: ELECTRIC MOTOR WITH IMPROVED COOLING SYSTEM)

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Express Mail mailing label number: **EV 431637840 US**

Date of Deposit: **February 27, 2004**

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450".

ANTONELLA FUSILLO

[Name of person mailing paper or fee]



[Signature]

S I R:

In accordance with 37 C.F.R. 1.56, applicant wishes to call the attention of the Examiner to the following references A) to F) which were cited in the International Search Report issued by the European Patent Office with regard to the corresponding international patent application No. PCT/EP02/09645 and references G) to L). Applicant does not admit that any of the cited documents constitutes prior art against the pending application.

	Country:	Patent or Appl. No:	Patentee or Applicant:	Issue or Filing Date:
A)	USA	US 5 751 077 A	Gonzales	05-12-1998
B)	Europe	EP 1 037 361 A	Hitachi	09-20-2000
C)	USA	US 5 767 600 A	Whiteley	06-16-1998
D)	USA	US 5 703 418 A	Assa	12-30-1997
E)	Japan	JP 04 183258 A	Daifuku	06-30-1992
F)	USA	US 2001/002507	Miller et al.	06-07-2001
G)	USA	US 5 258 671 A	Vollenwyder et al.	11-02-1993
H)	USA	US 5 128 569 A	Gladish	07-07-1992
I)	Germany	DE 196 04 642 A1	Krauss-Maffei	08-14-1997
J)	Germany	DE 197 15 530 A1	Anorad Corp.	10-30-1997
K)	Germany	DE 199 12 136 C2	Siemens Linear	09-28-2000
L)	Germany	DE 295 01 109 U1	Baumüller Nürnberg	06-01-1995

Copies of these references are submitted herewith along with form PTO-1449. The Examiner is requested to initial the attached form PTO-1449 and to return a copy of the initialed document to the undersigned as an indication that the attached references have been considered and made of record.

☒ [X] This Information Disclosure Statement is filed within three months of the filing date of a national application other than a continued prosecution application under 1.53(d), so that no fee under 37 C.F.R. §1.97 is due.

☐ [] This Information Disclosure Statement is filed within three months of the date of entry of the national stage as set forth in 1.491 in an international application, so that no fee under 37 C.F.R. §1.97 is due.

☐ [] This Information Disclosure Statement is filed before the mailing of a first Office Action on the merits, so that no fee under 37 C.F.R. §1.97 is due.

- ☐ This Information Disclosure Statement is filed before the mailing of a first Office Action after the filing of a request for continued examination under §1.114, so that no fee under 37 C.F.R. §1.97 is due.
- ☐ This Information Disclosure Statement is filed after the issuance of a first office but before issuance of a final action under §1.113, or a notice of allowance under §1.311.
- ☐ This Information Disclosure Statement is submitted after the mailing of a final action or a notice of allowance, but before payment of the issue fee.
- ☐ The undersigned submits the following statement requesting consideration of this statement:

The undersigned hereby states:
 - ☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement;
 - ☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the statement after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in §1.56(c) more than three months prior to the filing of the information disclosure statement.
- ☐ The fee of \$180.00 set forth in 1.17(p).

☐ The Commissioner is hereby authorized to charge the fee as set forth in 1.17(p), and any additional fees which may be required, or credit any overpayment to Deposit Account No. 06-0502.

☒ The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 06-0502.

In order to satisfy the requirement under 37 C.F.R. §1.98(a)(3) for a concise explanation of the relevance of each item of information, applicant herewith submits a copy of the International Search Report together with a translation of the relevant pages thereof. In addition, applicant notes with respect to any information that is not in English language as follows:

Reference I) describes a linear motor in which the primary part (1) is cooled using a coolant circuit (7) to remove the quantities of heat loss arising in the current-carrying conductor windings so that the operational temperature required is not exceeded in the linear motor. The primary part (1) is surrounded completely by a cooling plate (10) through which coolant flows and by an enclosing housing (14). The cooling plate (10) is the element used to fasten the primary part (1) to that machine component (20) of the production machine which is to be moved.

Reference J) describes a linear motor having an epoxy core armature with dual cold plates attached to a top and a bottom of the epoxy core armature to effect cooling of the epoxy core armature. The use of dual cold plates with circulating cooling fluid reduces heat build up by providing paths of high thermal

conductivity from any point in the epoxy core armature to the cold plates. Also described are ceramic heat sink plates laminated to sides of the epoxy core armature to increase the thermal conductivity and the resultant power dissipation capacity of the epoxy core armature without introducing magnetic or electrically conducting materials. Other embodiments utilize cold plates formed from extrusions of aluminum or ceramic materials, or have forced air cooling wherein a U-frame of the linear motor has longitudinal flexible seals and air is forced through the U-frame in which the epoxy core armature travel. Yet another embodiment has a U-frame with ducts formed therein through which air is force. Orifices connect the ducts to an interior of the U-frame through which the epoxy core armature travels.

Reference K) describes a holding armature having an iron core (5) and capsule housing having side panels with two opposite right angles and ground area (13). Casting/sealing armatures are arranged in the form of wires (15) projecting into groove/slots. The wire forms a casting/sealing armature that can no longer be removed from the casting/sealing (20) that hardens by the capsule housing anchored on the motor core.

Reference L) describes a stator for an electric linear motor, including a iron core having a back portion provided with attachment and/or engagement elements for attachment of external carrier or fastener assemblies.

The above-identified application discloses and claims an invention patentable over this prior art.

Entry of the references above set forth into the file of the above application
is believed to be in order and is respectfully requested.

Respectfully submitted

By: 

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Form PTO-1449

U.S. Department of Commerce
Patent and Trademark Office**INFORMATION DISCLOSURE CITATION**

Attorney's Docket No. HOPPE-10	Applicant THOMAS HOPPE	Cont. of Int. Appl. No. PCT/EP02/09645
Int. Filing Date August 29, 2002	Group	Examiner

U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date, if appropriate
	5,751,077	05-12-1998	Gonzales			
	5,767,600	06-16-1998	Whiteley			
	5,703,418	12-30-1997	Assa			
	2001/002507	06-07-2001	Miller et al.			
	5,258,671	11-02-1993	Vollenwyder et al.			
	5,128,569	07-07-1992	Gladish			

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation
	EP 1 037 361 A	09-20-2000	Europe			yes
	JP 04 183258 A	06-30-1992	Japan			no
	DE 196 04 642 A1	08-14-1997	Germany			no
	DE 197 15 530 A1	10-30-1997	Germany			no
	DE 199 12 136 C2	09-28-2000	Germany			no
	DE 295 01 109 U1	06-01-1995	Germany			no

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Examiner:**Date considered:**

*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.